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BEFORE THE ARIZONA CORPORATION COMMISSION

MIKE GLEASON
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
KRISTEN K. MAYES
Commissioner
GARY PIERCE
Commissioner

Arizona Corporation Commission

DOCKETED

MAY 16 2008

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IN THE MATTER OF THE APPLICATION
OF SOUTHWEST GAS CORPORATION –
FILING FOR APPROVAL OF ITS MULTI-
FAMILY NEW CONSTRUCTION
PROGRAM

DOCKET NO. G-01551A-04-0876

DECISION NO. 70350ORDER

Open Meeting
May 6 and 7, 2008
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

1. Southwest Gas Corporation ("Southwest") is engaged in providing natural gas within portions of Arizona, pursuant to authority granted by the Arizona Corporation Commission.

2. On June 26, 2006, Southwest filed an application for approval of its original Multi-Family New Construction ("Multi-Family") program, as required by Decision No. 68487. Decision No. 68487 required that the Company file detailed descriptions of its DSM programs within 120 days of the Commission's February 23, 2006 Order approving rate changes effective March 1, 2006.

3. The original Multi-Family program was one of seven demand-side management ("DSM") programs included in Southwest's 2006 Arizona Demand-Side Management Program Plan. The program would have provided incentives to apartment builders to construct energy-efficient multi-family housing, primarily addressing a set of individual energy-efficient measures.

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4. In Decision No. 69918, dated September 27, 2007, the Commission ordered that the original Multi-Family program not be approved. The Commission further ordered that, within 60 days, Southwest file a report regarding the feasibility of shifting funds proposed for the Multi-Family program to the Low-Income Energy Conservation ("LIEC") program. If such a shift was not feasible, Southwest was ordered to provide a plan for reallocating Multi-Family funds to one or more alternate Southwest DSM programs.

5. On November 28, 2007, Southwest filed a new DSM program plan in compliance with Decision No. 69918. In this plan Southwest states that the Arizona Department of Commerce Energy Office ("AEO") and the nine community action agencies participating in the LIEC program "verified additional funding is not needed at this time." The plan proposes a new Multi-Family New Construction Demand-Side Management Program that would promote construction of energy-efficient apartment buildings. The new Multi-Family program is based on a "whole house" approach, and is designed to improve thermal shell construction, upgrade mechanical systems and provide inspection and testing.

Program Description.

6. The proposed program would provide incentives to builders to improve thermal envelopes and install hydronic heating systems in individual apartment units. Envelope improvement measures would include duct testing and inspections to ensure the proper installation of insulation. Hydronic heating combines water and space heating in a single unit, is more energy-efficient than a separate water heater and furnace, and is usually compact, allowing for installation in multi-family units with limited space.

7. Under the proposed Multi-Family program, gas-fueled hydronic heaters would be installed in both dual (gas and electric) apartments, and in apartments that would normally be all-electric. In order for hydronic heaters to be installed in normally all-electric units¹ and to take the place of less energy-efficient electric water heaters, those units would be piped for gas.

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¹ The term "otherwise all-electric" is used herein to denote apartments that would normally receive only electric service.

Marketing and Communication

8. Advertising. The program would be marketed to potential renters, and the public generally, through the advertising that stresses the benefits of energy-efficient apartment living. The advertising would include: (i) brochures; (ii) banners; (iii) signage; and (iv) advertisements in publications catering to persons seeking apartments.

9. Training. On-site training in energy-efficient construction techniques and hydronic systems would be provided to multi-family developers and their associated tradespeople. The training would be given by the program contractor who is performing the duct testing and insulation inspections, and would be ongoing. Additional training would be provided through formal classes offered through the Energy and Environmental Building Association ("EEBA") and through sessions with manufacturers of hydronic equipment.

Delivery

10. Southwest would finalize program requirements and would likely process rebates internally, unless it determines that utilizing a third party would be more cost-effective. Southwest employees, possibly with the assistance of a contractor, would design and print marketing materials, and identify, target and negotiate with key builders in order to bring about the desired program participation. Either Southwest or its contractor would also verify installation of program measures and pay rebates to participating builders.

Incentives

11. Under the proposed program, two levels of incentives would be provided to builders. Incentives for otherwise all-electric apartments would be higher to compensate for the greater cost of constructing otherwise all-electric apartments to use gas. Proposed program incentives are listed below:

Measure Description	Incentive for Dual-Energy Apartments	Incentive for Otherwise all-electric Apartments
Envelope measures; and Hydronic heating system (includes piping gas to otherwise all-electric apartments)	\$300	\$700
Estimated incremental cost of program measures	\$245	\$850

12. The above incentives would represent 122 percent of the estimated incremental cost for dual power apartments, and 82 percent of the incremental cost for otherwise all-electric apartments. In a program recommended for approval, Staff would recommend that these incentives be decreased to no more than 50 percent of the incremental cost of installed measures.

Participation

13. Southwest projects that, during the first year of the program, 440 dual-energy and 60 otherwise all-electric apartments would be built under Southwest's Multi-Family gas DSM program. In the second year, Southwest projects that 440 dual-energy and 560 otherwise all-electric apartments would be built under the program. Should the program be approved and continue beyond 2009, Southwest anticipates that dual-energy apartment participation would continue at the 2008-2009 level, while otherwise all-electric participation would gradually increase.

Testing and Verification

14. Inspections and verifications would be conducted on a sampling of measures, to confirm proper installation. Southwest would utilize an experienced contractor or contractors to provide inspection and verification services along Energy Star home guidelines.² In new projects, each unit would be inspected and tested until seven units in a row passed. After that stage, up to 25 percent of the units would be visually inspected and 15 percent would be tested for duct leakage. Levels of inspection and testing would increase with any failures, until another seven units in a row would be required to pass inspection. Immediate remediation would be required and would be followed by re-inspection or testing.

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² There are no Energy Star guidelines for multi-family housing, so Energy Star home guidelines would be utilized.

Program Budget

15. Below is the budget for the Multi-Family program as currently proposed:

PROPOSED MULTI-FAMILY NEW CONSTRUCTION BUDGET

Program Year	2008	2009
Implementation		
Outside contractors	45,000	90,000
Marketing/Communication		
Publications, banners, signs and brochures	55,000	64,500
Incentives		
Incentive amounts	174,000	524,000
Education and Training		
EEBA classes	12,000	12,000
On-site training	1,000	1,000
Manufacturer training	5,000	1,000
Measurement and Evaluation		
Measurement and Evaluation	1,000	1,000
Administrative Costs		
Office supplies	1,000	500
Travel expenses	1,000	1,000
Miscellaneous	5,000	5,000
TOTAL	\$300,000	\$700,000

16. Although a two-year horizon was used for planning purposes, the Company anticipates that an approved Multi-Family program would continue with a \$700,000 budget until the Commission took further action. At \$700,000, the Multi-Family program would represent approximately 18.6 percent of a total \$3,760,000 in budgets for approved Southwest DSM programs.

Staff Analysis

17. Cost-effectiveness. Staff estimates cost-effectiveness for the Multi-Family program at 1.2 in 2008 and 1.8 in 2009. The cost-effectiveness of the program is primarily due to kWh savings arising from installing gas-fueled hydronic heaters in the place of electric water heaters. Additional kWh savings, also contributing to cost-effectiveness, would arise from envelope improvements to both dual-energy and normally all-electric apartments.

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Environmental Benefits

18. In the table below are Staff's estimates of the lifetime CO₂ savings for the Multi-Family program. These numbers have been adjusted to reflect the increase in therm usage due to the installation of gas-fueled heaters in otherwise all-electric apartments.

Lifetime Savings	CO ₂ Savings (lbs.)
2008 installations	14,439,107
2009 installations	39,929,548
Total Lifetime Savings	54,368,655

Costs Per Therm Saved

19. Southwest projects participation of 500 units for 2008; 440 of the units would be dual-energy apartments, while 60 would be otherwise all-electric apartments piped for gas. With this mix of participation, and a first year budget of \$300,000, Staff estimates lifetime therm savings (for 2008 measures only) at 389,840, with a cost of \$0.77 per therm saved, taking only therm savings into account. (With program costs split between gas and electric savings, the cost per therm saved in the first year would be \$0.39 and the cost per kWh saved would be \$0.014.)

20. In the second year of the program, Southwest projects participation at 1,000 units, with 440 dual-energy apartments and 560 otherwise all-electric apartments. With a 440/560 participation mix, and a second year budget of \$700,000, there would be no therm savings. Instead, 1,150,160 more therms would be used over the lifetime of the measures installed during 2009. The cost per kWh saved in the second year would be \$0.012.

Fuel Switching

21. In the table below are Staff's estimates of the lifetime therm and kWh savings for the Multi-Family program:

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Lifetime Savings	Therms	kWh
2008 installations	389,840	10,772,060
2009 installations	-1,150,160 (1,150,160 more therms used)	58,218,560
Total Lifetime Savings	-760,320 (760,320 more therms used)	68,990,620

22. In Arizona, most apartments are constructed with electric service only, due to the higher cost of constructing multi-family units to receive both gas and electric service. The remaining apartments, approximately 10 percent³, are built as dual-energy units, usually in luxury projects. As proposed, the new Multi-Family program would primarily enroll dual-energy, usually luxury, apartments during its first year, resulting in both gas and electric savings, but by the second year a majority of the participating units would be otherwise all-electric. The result of this participation mix would be large electric savings, but a significant net increase in the amount of natural gas used as a result of the program.

23. Fuel switching is a significant issue with respect to the Multi-Family program. The key energy saving measure would provide gas service to apartments that would normally be all-electric, allowing gas-fueled hydronic water heaters to be installed instead of the electric water heaters found in most Arizona multi-family housing. More electricity would be saved through providing envelope improvements to these same, normally all-electric apartments. The gas-powered hydronic heaters installed in place of electric heaters would also result in higher natural gas use after the first year, use that would not occur without the program (approximately 760,320 more therms over the life of the measures). Due to this program design, the proposed Southwest Multi-Family natural gas DSM program would place Southwest ratepayers in the position of paying for a gas DSM program that, after the first year, produces electric savings, while increasing gas usage.

24. Staff has recommended against approval of the Multi-Family program, due to the fuel switching issue and because the program would not produce therm savings beyond the first

³ Because the stock of luxury, or dual-energy, apartments has been depleted by condominium conversion, the percentage of luxury apartments currently being built may now be higher than 10%.

1 year of operation. As designed, the program would subsidize competition for Southwest in the
2 multi-family market, where building to include gas service is usually not economic.

3 25. Staff has recommended that no part of the Southwest DSM budget be allocated to
4 the proposed Multi-Family program.

5 26. Staff has recommended that Southwest renew communication with the community
6 action agencies participating in its LIEC program, in order to determine whether increased
7 availability of skilled housing workers, decreases in federal funding levels or increased
8 weatherization program activity have made a shift in DSM funding to this program feasible. Staff
9 also has recommended that Southwest explore the feasibility of shifting DSM funding into one of
10 its other existing DSM programs, such as the Consumer Products program, should such a shift
11 promote the goals of DSM.

12 Reporting Requirements

13 27. Staff has recommended that the Multi-Family program not be approved and, for this
14 reason, has not made recommendations regarding the type of program information that should be
15 included in Southwest's semi-annual DSM reports.

16 Summary of Staff Recommendations

17 28. Staff has recommended against approval of the Multi-Family program.

18 29. Staff has recommended that Southwest renew communication with the community
19 action agencies participating in its LIEC program, in order to determine whether increased
20 availability of skilled housing workers, decreases in federal funding levels or increased
21 weatherization program activity have made a shift in DSM funding from the proposed Multi-
22 Family program to the LIEC program feasible.

23 30. Staff also has recommended that Southwest explore the feasibility of shifting DSM
24 funding from the proposed Multi-Family program into one of its other existing DSM programs,
25 such as the Consumer Products program, should such a shift promote the goals of DSM.

26 31. Staff has recommended that no part of the Southwest DSM budget be allocated to
27 the proposed Multi-Family program.

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CONCLUSIONS OF LAW

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2 1. Southwest is an Arizona public service corporation within the meaning of Article
3 XV, Section 2, of the Arizona Constitution.

4 2. The Commission has jurisdiction over Southwest and over the subject matter of the
5 application.

6 3. The Commission, having reviewed the application and Staff's Memorandum dated
7 April 22, 2008, concludes that it is not in the public interest to approve the Multi-Family New
8 Construction program.

ORDER

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10 IT IS THEREFORE ORDERED that the Southwest Gas Corporation Multi-Family New
11 Construction program not be and hereby is not approved.

12 IT IS FURTHER ORDERED that Southwest Gas Corporation renew communication with
13 the community action agencies participating in its LIEC program, in order to determine whether
14 increased availability of skilled housing workers, decreases in federal funding levels or increased
15 weatherization program activity have made a shift in DSM funding from the proposed Multi-
16 Family program to the LIEC program feasible.

17 IT IS FURTHER ORDERED that Southwest Gas Corporation explore the feasibility of
18 shifting DSM funding from the proposed Multi-Family program into one of its other existing DSM
19 programs, such as the Consumer Products program, should such a shift promote the goals of DSM.

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IT IS FURTHER ORDERED that no portion of the Southwest Gas Corporation DSM budget be allocated to the proposed Multi-Family program.

IT IS FURTHER ORDERED that this Decision shall become effective immediately.

BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION


CHAIRMAN

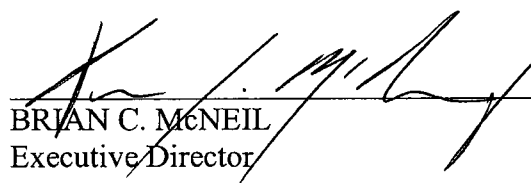

COMMISSIONER


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IN WITNESS WHEREOF, I, BRIAN C. McNEIL, Executive Director of the Arizona Corporation Commission, have hereunto, set my hand and caused the official seal of this Commission to be affixed at the Capitol, in the City of Phoenix, this 16th day of May, 2008.


BRIAN C. McNEIL
Executive Director

DISSENT: _____

DISSENT: _____

EGJ:JMK:lhv\JMA

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